10/578,250

(FILE 'HOME' ENTERED AT 21:21:51 ON 25 SEP 2007)

FILE 'REGISTRY' ENTERED AT 21:22:16 ON 25 SEP 2007
E CYANIDIN-3-RHAMNOSIDE/CN
E CYANIDIN 3-RHAMNOSIDE/CN
L1 1 S E3
E PELARGONIDIN 3-RHAMNOSIDE/CN
E PELARGONIDIN-3-RHAMNOSIDE/CN
E PELARGONIDIN/CN
L2 1 S E3

FILE 'CAPLUS' ENTERED AT 21:24:39 ON 25 SEP 2007
L3 25 S L1
E DIABETES+ALL/CT
L4 6 S L3 AND (GLUCOSE OR DIABETES)

10/578,250

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TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

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 NEWS  1          Web Page for STN Seminar Schedule - N. America
 NEWS  2  JUL 02  LMEDLINE coverage updated
 NEWS  3  JUL 02  SCISEARCH enhanced with complete author names
 NEWS  4  JUL 02  CHEMCATS accession numbers revised
 NEWS  5  JUL 02  CA/CAplus enhanced with utility model patents from China
 NEWS  6  JUL 16  CAplus enhanced with French and German abstracts
 NEWS  7  JUL 18  CA/CAplus patent coverage enhanced
 NEWS  8  JUL 26  USPATFULL/USPAT2 enhanced with IPC reclassification
 NEWS  9  JUL 30  USGENE now available on STN
 NEWS 10  AUG 06  CAS REGISTRY enhanced with new experimental property tags
 NEWS 11  AUG 06  BEILSTEIN updated with new compounds
 NEWS 12  AUG 06  FSTA enhanced with new thesaurus edition
 NEWS 13  AUG 13  CA/CAplus enhanced with additional kind codes for granted
                  patents
 NEWS 14  AUG 20  CA/CAplus enhanced with CAS indexing in pre-1907 records
 NEWS 15  AUG 27  Full-text patent databases enhanced with predefined
                  patent family display formats from INPADOCDB
 NEWS 16  AUG 27  USPATOLD now available on STN
 NEWS 17  AUG 28  CAS REGISTRY enhanced with additional experimental
                  spectral property data
 NEWS 18  SEP 07  STN AnaVist, Version 2.0, now available with Derwent
                  World Patents Index
 NEWS 19  SEP 13  FORIS renamed to SOFIS
 NEWS 20  SEP 13  INPADOCDB enhanced with monthly SDI frequency
 NEWS 21  SEP 17  CA/CAplus enhanced with printed CA page images from
                  1967-1998
 NEWS 22  SEP 17  CAplus coverage extended to include traditional medicine
                  patents
 NEWS 23  SEP 24  EMBASE, EMBAL, and LEMBASE reloaded with enhancements

 NEWS EXPRESS  19 SEPTEMBER 2007:  CURRENT WINDOWS VERSION IS V8.2,
               CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

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* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 21:21:51 ON 25 SEP 2007

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 21:22:16 ON 25 SEP 2007
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McIntosh

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 24 SEP 2007 HIGHEST RN 947820-54-4
DICTIONARY FILE UPDATES: 24 SEP 2007 HIGHEST RN 947820-54-4

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TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

```
=> e cyanidin-3-rhamnoside/cn
E1            1     CYANIDIN-3-O-SOPHOROSIDE 5-O-GLUCOSIDE/CN
E2            1     CYANIDIN-3-RHAMNOGLUCOSIDO-7-XYLOSIDE/CN
E3            0 --> CYANIDIN-3-RHAMNOSIDE/CN
E4            1     CYANIDIN-3-RHAMNOSYLGALACTOSIDE/CN
E5            2     CYANIDINE/CN
E6            1     CYANIDINE 3-ARABINOSIDE/CN
E7            1     CYANIDINE 3-SAMBUBIOSIDE/CN
E8            1     CYANIDINE 3-SOPHOROSIDE/CN
E9            2     CYANIDOL/CN
E10           1     CYANIDOL 3,5-DIGLUCOSIDE CHLORIDE/CN
E11           1     CYANIDOL 3,5-DIGLUCOSIDE COUMARATE/CN
E12           1     CYANIDOL 3-GLUCOSIDE/CN

=> e cyanidin 3-rhamnoside/cn
E1            1     CYANIDIN 3-RHAMNOGLUCOSIDE/CN
E2            1     CYANIDIN 3-RHAMNOGLUCOSIDE GLUCOSIDE/CN
E3            1 --> CYANIDIN 3-RHAMNOSIDE/CN
E4            1     CYANIDIN 3-RHAMNOSIDE-5-GLUCOSIDE/CN
E5            1     CYANIDIN 3-RHAMNOSYLGLUCOSIDE/CN
E6            1     CYANIDIN 3-ROBINOBIOSIDE/CN
E7            1     CYANIDIN 3-RUTINOSIDE/CN
E8            1     CYANIDIN 3-RUTINOSIDE-5-GLUCOSIDE/CN
E9            1     CYANIDIN 3-SAMBUBIOSIDE/CN
E10           1     CYANIDIN 3-SAMBUBIOSIDE-5-GLUCOSIDE/CN
E11           1     CYANIDIN 3-SAMBUBOSIDE/CN
E12           2     CYANIDIN 3-SOPHOROSIDE/CN

=> s e3
L1            1 "CYANIDIN 3-RHAMNOSIDE"/CN

=> e pelargonidin 3-rhamnoside/cn
E1            1     PELARGONIDIN 3-O-RUTINOSIDE-5-O-COUMAROYLGLUCOSIDE/CN
E2            1     PELARGONIDIN 3-RHAMNOGALACTOSIDE/CN
E3            0 --> PELARGONIDIN 3-RHAMNOSIDE/CN
E4            1     PELARGONIDIN 3-RHAMNOSIDE-5-GLUCOSIDE/CN
E5            1     PELARGONIDIN 3-RHAMNOSYLGLUCOSIDE/CN
E6            1     PELARGONIDIN 3-ROBINOBIOSIDE/CN
E7            1     PELARGONIDIN 3-RUTINOSIDE/CN
E8            1     PELARGONIDIN 3-RUTINOSIDE-5-GLUCOPYRANOSIDE/CN
E9            1     PELARGONIDIN 3-SOPHOROSIDE/CN
E10           1     PELARGONIDIN 3-SOPHOROSIDE 5-GLUCOSIDE CINNAMATE/CN
E11           1     PELARGONIDIN 3-SOPHOROSIDE 7-GLUCOSIDE/CN
E12           1     PELARGONIDIN 3-SOPHOROSIDE-5-GLUCOSIDE/CN

=> e pelargonidin-3-rhamnoside/cn
E1            1     PELARGONIDIN-3-(2'-ACETYLRUTINOSIDE)/CN
E2            1     PELARGONIDIN-3-GLU/CN
E3            0 --> PELARGONIDIN-3-RHAMNOSIDE/CN
E4            1     PELARGONIDIN-3-RUTINOSIDE P-COUMARATE/CN
E5            1     PELARGONIDIN-3-RUTINOSIDE-5-GLUCOSIDE/CN
E6            1     PELARGONIDIN-3-RUTINOSIDE-5-GLUCOSIDE FERULATE/CN
E7            1     PELARGONIDIN-3-RUTINOSIDE-5-GLUCOSIDE P-COUMARATE/CN
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E8            1     PELARGONIDIN-3-SOPHOROSIDE-5-GLUCOSIDE/CN
E9            1     PELARGONIDIN-3-SOPHOROSIDE-5-GLUCOSIDE FERULATE/CN
E10           1     PELARGONIDIN-3-SOPHOROSIDE-5-GLUCOSIDE P-COUMARATE/CN
E11           1     PELARGONIDIN-3-SOPHOROSIDE-5-GLUCOSIDE-FERULATE MALONATE/CN
E12           1     PELARGONIDIN-3-SOPHOROSIDE-5-GLUCOSIDE-P-COUMARATE MALONATE/
                    CN

=> d l1

L1   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   38533-30-1  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   1-Benzopyrylium, 3-[(6-deoxy-α-L-mannopyranosyl)oxy]-2-(3,4-
     dihydroxyphenyl)-5,7-dihydroxy-, chloride (1:1)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   1-Benzopyrylium, 3-[(6-deoxy-α-L-mannopyranosyl)oxy]-2-(3,4-
     dihydroxyphenyl)-5,7-dihydroxy-, chloride (9CI)
CN   3',4',5,7-Tetrahydroxy-3-(rhamnosyloxy)flavylium chloride (7CI)
CN   Cyanidin 3-rhamnoside (6CI)
FS   STEREOSEARCH
DR   30138-63-7
MF   C21 H21 O10 . Cl
LC   STN Files:   BIOSIS, CA, CAOLD, CAPLUS, CHEMCATS, CSCHEM, NAPRALERT,
       TOXCENTER, USPATFULL
CRN  (768299-10-1)

Absolute stereochemistry.
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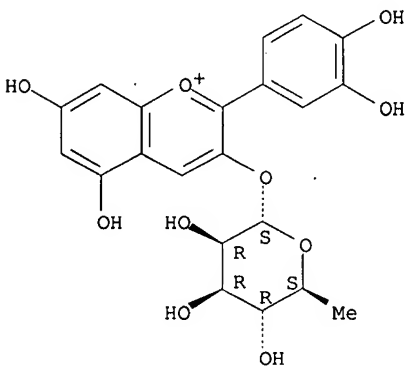

● Cl⁻

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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

             25 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
             25 REFERENCES IN FILE CAPLUS (1907 TO DATE)
              4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)


=> e pelargonidin/cn
E1            1     PELARGONIC AMIDE/CN
E2            1     PELARGONIC ANHYDRIDE/CN
E3            1 --> PELARGONIDIN/CN
E4            1     PELARGONIDIN 3,5-DI-B-D-GLUCOPYRANOSIDE/CN
E5            1     PELARGONIDIN 3,5-DI-B-D-GLUCOSIDE/CN
E6            1     PELARGONIDIN 3,5-DI-O-GLUCOSIDE/CN
E7            1     PELARGONIDIN 3,5-DIGLUCOSIDE/CN
E8            1     PELARGONIDIN 3-(6''-MALONYLGLUCOSIDE)/CN
E9            1     PELARGONIDIN 3-B-D-GLUCOPYRANOSIDE/CN
E10           1     PELARGONIDIN 3-B-GLUCOSIDE/CN
E11           1     PELARGONIDIN 3-ARABINOSIDE/CN
E12           1     PELARGONIDIN 3-GLUCOSIDE/CN
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```
=> s e3
L2            1 PELARGONIDIN/CN

=> d l2

L2   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   134-04-3  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   1-Benzopyrylium, 3,5,7-trihydroxy-2-(4-hydroxyphenyl)-, chloride (1:1)
     (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   1-Benzopyrylium, 3,5,7-trihydroxy-2-(4-hydroxyphenyl)-, chloride (9CI)
CN   Flavylium, 3,4',5,7-tetrahydroxy-, chloride (8CI)
CN   Pelargonidin (6CI)
OTHER NAMES:
CN   3,4',5,7-Tetrahydroxyflavylium chloride
CN   Pelargonidin chloride
CN   Pelargonidol chloride
MF   C15 H11 O5 . Cl
CI   COM
LC   STN Files:   AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS, BIOTECHNO, CA, CABA,
       CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU,
       EMBASE, MRCK*, NAPRALERT, PROMT, TOXCENTER, USPAT2, USPATFULL
         (*File contains numerically searchable property data)
     Other Sources:   EINECS**
         (**Enter CHEMLIST File for up-to-date regulatory information)
CRN  (7690-51-9)
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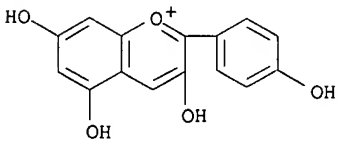

● Cl^-

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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

             621 REFERENCES IN FILE CA (1907 TO DATE)
              64 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
             623 REFERENCES IN FILE CAPLUS (1907 TO DATE)
              30 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file caplus
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                  ENTRY     SESSION
FULL ESTIMATED COST                               15.60       15.81

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FILE COVERS 1907 - 25 Sep 2007  VOL 147 ISS 14
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10/578,250

FILE LAST UPDATED: 24 Sep 2007 (20070924/ED)

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http://www.cas.org/infopolicy.html

=> s l1
L3 25 L1

=> s l3 and (glucose or diabetes)
431344 GLUCOSE
830 GLUCOSES
431526 GLUCOSE
(GLUCOSE OR GLUCOSES)
130814 DIABETES
L4 6 L3 AND (GLUCOSE OR DIABETES)

=> d bib abs kwic 1-6 l4

L4 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:513589 CAPLUS
DN 147:138388
TI Identification of a Flavonol 7-O-Rhamnosyltransferase Gene Determining Flavonoid Pattern in Arabidopsis by Transcriptome Coexpression Analysis and Reverse Genetics
AU Yonekura-Sakakibara, Keiko; Tohge, Takayuki; Niida, Rie; Saito, Kazuki
CS RIKEN Plant Science Center, Suehiro-cho 1-7-22, Tsurumi-ku, Yokohama, 230-0045, Japan
SO Journal of Biological Chemistry (2007), 282(20), 14932-14941
CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English
AB Glycosylation plays a major role in the remarkable chemical diversity of flavonoids in plants including Arabidopsis thaliana. The wide diversity encoded by the large family-1 glycosyltransferase (UGT) gene family makes it difficult to determine the biochem. function of each gene solely from its primary sequence. Here we used transcriptome coexpression anal. combined with a reverse genetics approach to identify a gene that is prominent in determining the flavonoid composition of ARABIDOPSIS: Using transcriptome coexpression anal. accessible on the ATTED-II public data base, the expression pattern of a UGT gene, UGT89C1, was found to be highly correlated with known flavonoid biosynthetic genes. No C-7 rhamnosylated flavonols were detected in either of two T-DNA ugt89c1 mutants. This specific metabolite deficiency in the mutants was complemented by stable transformation with the genomic fragment containing intact UGT89C1. Glutathione S-transferase fused recombinant UGT89C1 protein converted kaempferol 3-O-glucoside to kaempferol 3-O-glucoside-7-O-rhamnoside and recognized 3-O-glycosylated flavonols and UDP-rhamnose as substrates, but not flavonol aglycons, 3-O-glycosylated anthocyanins or other UDP-sugars. These results show that UGT89C1 is a flavonol 7-O-rhamnosyltransferase. The abundance of UGT89C1 transcripts in floral buds was consistent with the flavonoid accumulation of C-7 rhamnosylated flavonols in Arabidopsis organs. The present study demonstrates that the integration of transcriptome coexpression anal. with a reverse genetic approach is a versatile tool for understanding a multigene family of a metabolic pathway in ARABIDOPSIS.
RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
IT 153-18-4 480-10-4 482-35-9, Quercetin 3-O-glucoside 482-36-0 522-12-3, Quercetin 3-O-rhamnoside 604-80-8 5041-82-7, Isorhamnetin 3-O-glucoside 7084-24-4, Cyanidin 3-O-glucoside 17650-84-9 18719-76-1 38533-30-1 83380-89-6
RL: ANT (Analyte); ANST (Analytical study)
(identification of a flavonol 7-O-rhamnosyltransferase gene determining flavonoid pattern in Arabidopsis by transcriptome coexpression anal. and reverse genetics)
IT 133-89-1P, UDP-glucose 1955-26-6P, UDP-rhamnose 2616-64-0P, UDP-glucuronic acid 2956-16-3P, UDP-galactose
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(identification of a flavonol 7-O-rhamnosyltransferase gene determining flavonoid pattern in Arabidopsis by transcriptome coexpression anal. and reverse genetics)

McIntosh

L4 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2006:1048945 CAPLUS
DN 146:80737
TI Anthocyanin pigments in strawberry
AU Lopes da Silva, Fatima; Escribano-Bailon, Maria Teresa; Perez Alonso, Jose Joaquin; Rivas-Gonzalo, Julian C.; Santos-Buelga, Celestino
CS Facultad de Farmacia, Laboratorio de Nutricion y Bromatologia, Universidad de Salamanca, Salamanca, E-37007, Spain
SO LWT--Food Science and Technology (2006), Volume Date 2007, 40(2), 374-382
CODEN: LSTWB3
PB Elsevier Ltd.
DT Journal
LA English
AB The anthocyanin composition was analyzed in strawberry fruits from five different cultivars (cv. Eris, Oso Grande, Carisma, Tudnew and Camarosa). Twenty-five defined anthocyanin pigments were detected, most of them containing Pelargonidin (Pg) as aglycon; some cyanidin (Cy) derivs. were also found. Glucose and rutinose were the usual substituting sugars, although arabinose and rhamnose were also tentatively identified; some minor anthocyanins showed acylation with aliphatic acids. A relevant aspect was the detection of anthocyanin-derived pigments, namely 5-carboxypyranopelargonidin-3-glucoside and 4 condensed pigments containing C-C linked anthocyanin (Pg) and flavanol (catechin and afzelechin) residues. Total anthocyanin content ranged between 200 and 600 mg kg-1, with Pg 3-gluc constituting 77-90% of the anthocyanins in the strawberry exts. followed by Pg 3-rut (6-11%) and Cy 3-gluc (3-10%). A notable variability was found among the anthocyanin concns. in samples of a same variety and harvest, indicating a strongly influence of the degree of maturity, edaphic-climatic factors and post-harvest storage.
RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
AB . . . defined anthocyanin pigments were detected, most of them containing Pelargonidin (Pg) as aglycon; some cyanidin (Cy) derivs. were also found. Glucose and rutinose were the usual substituting sugars, although arabinose and rhamnose were also tentatively identified; some minor anthocyanins showed acylation. . .
IT 134-04-3D, Pelargonidin, derivs. 134-04-3D, Pelargonidin, disaccharides 528-58-5D, Cyanidin, derivs. 7084-24-4, Cyanidin 3-glucoside 17334-58-6, Pelargonidin 3,5-diglucoside 18466-51-8, Pelargonidin 3-glucoside 18466-51-8D, Pelargonidin 3-glucoside, acetates 18719-76-1, Cyanidin 3-rutinoside 33569-08-3, Pelargonidin 3-arabinoside 33569-08-3D, succinates 33978-17-5, Pelargonidin 3-rutinoside 34425-22-4, Pelargonidin 3-galactoside 38533-30-1D, malonates 56190-03-5D, malonates 94977-38-5 104055-86-9 104056-23-7 138590-96-2 216692-08-9 680227-23-0 753008-64-9 753008-65-0 753008-66-1 753008-67-2 781626-03-7
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(anthocyanin pigments in strawberry cultivars)

L4 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:426452 CAPLUS
DN 142:441885
TI Glucose absorption inhibitor and process for producing the same
IN Aoki, Hitoshi; Hanamura, Takayuki; Mayama, Chisato; Hirayama, Yasushi; Shimizu, Makoto
PA Nichirei Corporation, Japan
SO PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005044290	A1	20050519	WO 2004-JP16218	20041101

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,

3rd apn

NE, SN, TD, TG

	JP 2005139093	A	20050602	JP 2003-375323	20031105
	EP 1685822	A1	20060802	EP 2004-799424	20041101
	R: DE, ES, FR, GB, IT				
	US 2007082077	A1	20070412	US 2006-578250	20060504
PRAI	JP 2003-375323	A	20031105		
	WO 2004-JP16218	W	20041101		

AB A glucose absorption inhibitor and a process for producing the inhibitor. The glucose absorption inhibitor contains as an active ingredient a substance which is derived from acerola and has glucose absorption inhibitory activity.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Glucose absorption inhibitor and process for producing the same

AB A glucose absorption inhibitor and a process for producing the inhibitor. The glucose absorption inhibitor contains as an active ingredient a substance which is derived from acerola and has glucose absorption inhibitory activity.

ST acerola polyphenol anthocyanin intestine glucose absorption inhibitor

IT Antidiabetic agents
Diabetes mellitus
Health food
Human
Intestine
Malpighia
(acerola polyphenols and anthocyanins as glucose absorption inhibitors and process for producing the same)

IT Anthocyanins
RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(acerola polyphenols and anthocyanins as glucose absorption inhibitors and process for producing the same)

IT Phenols, biological studies
RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polyphenols, nonpolymeric; acerola polyphenols and anthocyanins as glucose absorption inhibitors and process for producing the same)

IT Biological transport
(uptake; acerola polyphenols and anthocyanins as glucose absorption inhibitors and process for producing the same)

IT 50-99-7, D-Glucose, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(acerola polyphenols and anthocyanins as glucose absorption inhibitors and process for producing the same)

IT 38533-30-1P, Cyanidin-3-rhamnoside 56190-03-5P, Pelargonidin-3-rhamnoside
RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(acerola polyphenols and anthocyanins as glucose absorption inhibitors and process for producing the same)

L4 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:275690 CAPLUS

DN 142:341828

TI Hypoglycemic agents and AGE (advanced glycation endproducts) formation inhibitors from acerola, their medical use, and manufacture

IN Hanamura, Takayuki; Hagiwara, Toshihiko; Kawagishi, Hirokazu

PA Nichirei Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

prob 3

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005082509	A	20050331	JP 2003-314207	20030905
PRAI	JP 2003-314207		20030905		

AB Title agents and inhibitors, useful for prophylactic and therapeutic treatment of diabetes mellitus or diabetic complications, are manufactured by pulverization of acerola fruits, extraction, and optionally purification

Thus, cyanidin-3-rhamnoside, pelargonidin-3-rhamnoside, and quercitrin extracted from acerola fruits inhibited maltase and sucrase.

AB Title agents and inhibitors, useful for prophylactic and therapeutic treatment of diabetes mellitus or diabetic complications, are manufactured by pulverization of acerola fruits, extraction, and optionally purification Thus, cyanidin-3-rhamnoside, pelargonidin-3-rhamnoside, and quercitrin. .

IT Antidiabetic agents
Diabetes mellitus
Malpighia
(hypoglycemic agents and AGE formation inhibitors containing acerola polyphenols)

IT 522-12-3P, Quercitrin 38533-30-1P, Cyanidin-3-rhamnoside 56190-03-5P, Pelargonidin-3-rhamnoside
RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hypoglycemic agents and AGE formation inhibitors containing acerola polyphenols)

L4 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:233432 CAPLUS
DN 142:335271
TI Structural and functional characterization of polyphenols isolated from acerola (Malpighia emarginata DC.) fruit
AU Hanamura, Takayuki; Hagiwara, Toshihiko; Kawagishi, Hirokazu
CS Research and Development Division, Proc. Foods Company, Nichirei Corporation, Chiba, 261-8545, Japan
SO Bioscience, Biotechnology, and Biochemistry (2005), 69(2), 280-286
CODEN: BBBIEJ; ISSN: 0916-8451
PB Japan Society for Bioscience, Biotechnology, and Agrochemistry
DT Journal
LA English
AB Two anthocyanins, cyanidin-3-α-O-rhamnoside (C3R) and pelargonidin-3-α-O-rhamnoside (P3R), and quercitrin (quercetin-3-α-O-rhamnoside), were isolated from acerola (Malpighia emarginata DC.) fruit. These polyphenols were evaluated based on the functional properties associated with diabetes mellitus or its complications, i.e., on the radical scavenging activity and the inhibitory effect on both α-glucosidase and advanced glycation end product (AGE) formation. C3R and quercitrin revealed strong radical scavenging activity. While the inhibitory profiles of isolated polyphenols except quercitrin towards α-glucosidase activity were low, all polyphenols strongly inhibited AGE formation.
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
AB . . . (quercetin-3-α-O-rhamnoside), were isolated from acerola (Malpighia emarginata DC.) fruit. These polyphenols were evaluated based on the functional properties associated with diabetes mellitus or its complications, i.e., on the radical scavenging activity and the inhibitory effect on both α-glucosidase and advanced glycation. .

IT 522-12-3P 38533-30-1P 56190-03-5P
RL: BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(Structural and functional characterization of polyphenols from acerola fruit)

L4 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1963:422016 CAPLUS
DN 59:22016
OREF 59:4025g-h,4026a
TI Plant polyphenols. IX. The glycosidic pattern of anthocyanin pigments
AU Harborn, J. B.
CS John Innes Inst., Hertford, UK
SO Phytochemistry (Elsevier) (1963), 2, 85-97
CODEN: PYTCAS; ISSN: 0031-9422
DT Journal
LA Unavailable
AB cf. CA 57, 15513i. Twenty-three new anthocyanins have been identified and their Rf values and spectral properties. recorded. They are the 3-galactoside of pelargonidin (I); the 3-rhamnosides of peonidin (II), petunidin (III), and malvidin (IV); the 3-sambubioside of I; the 3-xylosylgalactosides of I, cyanidin (V), and II; the 3-sophorosides of I and V; the 5-glucoside-3-sophorosides of I and V; the 7-glucoside-3-

sophoroside of I; the 5-glucoside-3-rhamno- sides of I, II, III, IV, V, and delphinidin; the 5-glucoside-3sambubiosides of I and V; the 3,5-diglucoside of rosinidin; and the 5-glucoside of luteolinidin. They occur variously, usually in the flowers, in spp. of Brassica, Fagus, Gesneria, Lathyrus, Matthiola, Papaver, Primula, Raphanus, and Streptocarpus. Known anthocyanins have been identified in these and other genera. As a result of this survey, previous structures for pigments of corn poppy, garden stock, and red cabbage have been revised.

IT 910906-03-5, D-Glucose, 2-O-β-D-xylofuranosyl-
(derivs)

IT 132-37-6P, Peonin 2611-67-8P, Cyanin 7084-24-4P, Chrysanthemin 7228-78-6P, Enin 13089-93-5P, 1-Benzopyrylium, 2-(3,4-dihydroxyphenyl)-5-(β-D-glucopyranosyloxy)-7-hydroxy-, chloride 16727-02-9P, 1-Benzopyrylium, 2-(3,4-dihydroxyphenyl)-3-[(2-O-β-D-glucopyranosyl-β-D-glucopyranosyl)oxy]-5-(β-D-glucopyranosyloxy)-7-hydroxy-, chloride 16727-30-3P, Malvin 17334-58-6P, Pelargonin 17670-06-3P, Delphin 18376-31-3P, 1-Benzopyrylium, 2-(3,4-dihydroxyphenyl)-3-[(2-O-β-D-glucopyranosyl-β-D-glucopyranosyl)oxy]-5,7-dihydroxy-, chloride 18466-51-8P, Callistephin 18719-76-1P, Keracyanin 20016-74-4P, Rosinidin, 3,5-diglucoside 27661-36-5P, Idein 28148-89-2P, 1-Benzopyrylium, 3-(β-D-galactopyranosyloxy)-5,7-dihydroxy-2-(4-hydroxy-3-methoxyphenyl)-, chloride 30104-49-5P, 1-Benzopyrylium, 5,7-dihydroxy-2-(4-hydroxyphenyl)-3-[(2-O-β-D-xylofuranosyl-β-D-glucopyranosyl)oxy]-, chloride 32221-58-2P, 1-Benzopyrylium, 3,5-bis(β-D-glucopyranosyloxy)-2-(4-hydroxy-3,5-dimethoxyphenyl)-7-methoxy-, chloride 34425-22-4P, 1-Benzopyrylium, 3-(β-D-galactopyranosyloxy)-5,7-dihydroxy-2-(4-hydroxyphenyl)-, chloride 38533-30-1P, 1-Benzopyrylium, 3-[(6-deoxy-α-L-mannopyranosyl)oxy]-2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-, chloride 53859-11-3P, 1-Benzopyrylium, 3-[(6-deoxy-α-L-mannopyranosyl)oxy]-5-(β-D-glucopyranosyloxy)-7-hydroxy-2-(4-hydroxy-3-methoxyphenyl)-, chloride 53925-28-3P, 1-Benzopyrylium, 3-[(6-deoxy-α-L-mannopyranosyl)oxy]-5,7-dihydroxy-2-(4-hydroxy-3,5-dimethoxyphenyl)-, chloride 53925-29-4P, 1-Benzopyrylium, 3-[(6-deoxy-α-L-mannopyranosyl)oxy]-5-(β-D-glucopyranosyloxy)-7-hydroxy-2-(4-hydroxy-3,5-dimethoxyphenyl)-, chloride 53925-30-7P, 1-Benzopyrylium, 3-[(6-deoxy-α-L-mannopyranosyl)oxy]-2-(3,4-dihydroxy-5-methoxyphenyl)-5-(β-D-glucopyranosyloxy)-7-hydroxy-, chloride 53925-31-8P, 1-Benzopyrylium, 3-[(6-deoxy-α-L-mannopyranosyl)oxy]-5-(β-D-glucopyranosyloxy)-7-hydroxy-2-(3,4,5-trihydroxyphenyl)-, chloride 53925-32-9P, 1-Benzopyrylium, 3-[(6-deoxy-α-L-mannopyranosyl)oxy]-5-(β-D-glucopyranosyloxy)-7-hydroxy-2-(4-hydroxyphenyl)-, chloride 55821-57-3P, 1-Benzopyrylium, 2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-3-[(O-β-D-xylopyranosyl-β-D-galactopyranosyl)oxy]-, chloride 56552-43-3P, 1-Benzopyrylium, 2-(3,4-dihydroxy-5-methoxyphenyl)-3,5-bis(β-D-glucofuranosyloxy)-7-hydroxy-, chloride 72551-79-2P, 1-Benzopyrylium, 3-[(6-deoxy-α-L-mannopyranosyl)oxy]-5,7-dihydroxy-2-(4-hydroxy-3-methoxyphenyl)-, chloride 86279-08-5P, 1-Benzopyrylium, 3-[(2-O-β-D-glucopyranosyl-β-D-glucopyranosyl)oxy]-7-(β-D-glucopyranosyloxy)-5-hydroxy-2-(4-hydroxyphenyl)-, chloride 101203-52-5P, 1-Benzopyrylium, 3-[(6-deoxy-α-L-mannopyranosyl)oxy]-2-(3,4-dihydroxy-5-methoxyphenyl)-5,7-dihydroxy-, chloride 102521-86-8P, 1-Benzopyrylium, 3,7-bis(β-D-glucopyranosyloxy)-5-hydroxy-2-(4-hydroxyphenyl)-, chloride 103064-79-5P, 1-Benzopyrylium, 5,7-dihydroxy-2-(4-hydroxyphenyl)-3-[(O-β-D-xylopyranosyl-β-D-glucopyranosyl)oxy]-, chloride 103102-91-6P, 3-[(6-O-β-D-Glucopyranosyl-D-glucosyl)oxy]-4',5,7-trihydroxyflavylium chloride 103189-13-5P, 4',5,7-Trihydroxy-3-[(6-O-β-L-rhamnosyl-D-glucosyl)oxy]flavylium chloride 103189-14-6P, 1-Benzopyrylium, 3-[(2-O-β-D-glucopyranosyl-D-glucopyranosylsyl)oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)-, chloride 105087-47-6P, 5-(D-Glucosyloxy)-4',7-dihydroxy-3-[(6-O-β-L-rhamnosyl-D-glucosyl)oxy]flavylium chloride 106198-07-6P, 5-(D-Glucosyloxy)-4',7-dihydroxy-3-[(2-O-β-D-xylofuranosyl-D-glucosyl)oxy]flavylium chloride 106249-11-0P, 5-(D-Glucosyloxy)-4',7-dihydroxy-3',5'-dimethoxy-3-[(6-O-β-L-rhamnosyl-D-glucosyl)oxy]flavylium chloride 155380-00-0P, 1-Benzopyrylium, 5,7-dihydroxy-2-(4-hydroxy-3-methoxyphenyl)-3-[(2-O-β-D-xylopyranosyl-β-D-galactopyranosyl)oxy]-, chloride
RL: PREP (Preparation)
(preparation of)

=> d his

(FILE 'HOME' ENTERED AT 21:21:51 ON 25 SEP 2007)

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     FILE 'REGISTRY' ENTERED AT 21:22:16 ON 25 SEP 2007
                E CYANIDIN-3-RHAMNOSIDE/CN
                E CYANIDIN 3-RHAMNOSIDE/CN
L1            1 S E3
                E PELARGONIDIN 3-RHAMNOSIDE/CN
                E PELARGONIDIN-3-RHAMNOSIDE/CN
                E PELARGONIDIN/CN
L2            1 S E3

     FILE 'CAPLUS' ENTERED AT 21:24:39 ON 25 SEP 2007
L3           25 S L1
                E DIABETES+ALL/CT
L4            6 S L3 AND (GLUCOSE OR DIABETES)

=> d bib abs kwic 1-25 l3

L3   ANSWER 1 OF 25  CAPLUS  COPYRIGHT 2007 ACS on STN
AN   2007:911577  CAPLUS
DN   147:242711
TI   Skin-lightening agent containing polyphenol compound
IN   Uchida, Eriko; Hanamura, Takayuki; Mayama, Chisato; Aoki, Hitoshi
PA   Nichirei Foods Inc., Japan
SO   U.S. Pat. Appl. Publ., 16pp., Cont.-in-part of Appl. No. PCT/JP05/015009.
     CODEN: USXXCO
DT   Patent
LA   English
FAN.CNT 2
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    -------------------    --------
PI   US 2007189997        A1    20070816    US 2007-708021         20070220
     WO 2006019114        A1    20060223    WO 2005-JP15009        20050817
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
             LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
             NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
             SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
             ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
PRAI JP 2004-238702       A     20040818
     WO 2005-JP15009      A2    20050817
AB   This invention relates to a method for inhibiting melanin formation in a
     subject comprising administering an effective amount of an Acerola-derived
     polyphenol compound, an Acerola polyphenol fraction, or the other polyphenol
     compound to a subject.  This method comprises lightening the subject's skin
     by the inhibition of melanin formation.  This method also comprises
     administering synergistically effective amts. of an Acerola-derived
     polyphenol compound, an Acerola polyphenol fraction, or the other polyphenol
     compound in combination with ascorbic acid or an ascorbic acid derivative to a
     subject.
IT   117-39-5, Quercetin   482-36-0, Hyperoside   522-12-3,
     Quercetin-3-rhamnoside   21637-25-2, Isoquercitrin   29838-67-3, Astilbin
     38533-30-1, Cyanidin-3-rhamnoside   56190-03-5,
     Pelargonidin-3-rhamnoside
     RL: BSU (Biological study, unclassified); COS (Cosmetic use); BIOL
     (Biological study); USES (Uses)
        (skin-lightening agent containing polyphenol compound)

L3   ANSWER 2 OF 25  CAPLUS  COPYRIGHT 2007 ACS on STN
AN   2007:513589  CAPLUS
DN   147:138388
TI   Identification of a Flavonol 7-O-Rhamnosyltransferase Gene Determining
     Flavonoid Pattern in Arabidopsis by Transcriptome Coexpression Analysis
     and Reverse Genetics
AU   Yonekura-Sakakibara, Keiko; Tohge, Takayuki; Niida, Rie; Saito, Kazuki
CS   RIKEN Plant Science Center, Suehiro-cho 1-7-22, Tsurumi-ku, Yokohama,
     230-0045, Japan
SO   Journal of Biological Chemistry (2007), 282(20), 14932-14941
     CODEN: JBCHA3; ISSN: 0021-9258
PB   American Society for Biochemistry and Molecular Biology
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DT Journal
LA English
AB Glycosylation plays a major role in the remarkable chemical diversity of flavonoids in plants including Arabidopsis thaliana. The wide diversity encoded by the large family-1 glycosyltransferase (UGT) gene family makes it difficult to determine the biochem. function of each gene solely from its primary sequence. Here we used transcriptome coexpression anal. combined with a reverse genetics approach to identify a gene that is prominent in determining the flavonoid composition of ARABIDOPSIS: Using transcriptome coexpression anal. accessible on the ATTED-II public data base, the expression pattern of a UGT gene, UGT89C1, was found to be highly correlated with known flavonoid biosynthetic genes. No C-7 rhamnosylated flavonols were detected in either of two T-DNA ugt89c1 mutants. This specific metabolite deficiency in the mutants was complemented by stable transformation with the genomic fragment containing intact UGT89C1. Glutathione S-transferase fused recombinant UGT89C1 protein converted kaempferol 3-O-glucoside to kaempferol 3-O-glucoside-7-O-rhamnoside and recognized 3-O-glycosylated flavonols and UDP-rhamnose as substrates, but not flavonol aglycons, 3-O-glycosylated anthocyanins or other UDP-sugars. These results show that UGT89C1 is a flavonol 7-O-rhamnosyltransferase. The abundance of UGT89C1 transcripts in floral buds was consistent with the flavonoid accumulation of C-7 rhamnosylated flavonols in Arabidopsis organs. The present study demonstrates that the integration of transcriptome coexpression anal. with a reverse genetic approach is a versatile tool for understanding a multigene family of a metabolic pathway in ARABIDOPSIS.
RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
IT 153-18-4 480-10-4 482-35-9, Quercetin 3-O-glucoside 482-36-0 522-12-3, Quercetin 3-O-rhamnoside 604-80-8 5041-82-7, Isorhamnetin 3-O-glucoside 7084-24-4, Cyanidin 3-O-glucoside 17650-84-9 18719-76-1 38533-30-1 83380-89-6
RL: ANT (Analyte); ANST (Analytical study)
(identification of a flavonol 7-O-rhamnosyltransferase gene determining flavonoid pattern in Arabidopsis by transcriptome coexpression anal. and reverse genetics)

L3 ANSWER 3 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:251976 CAPLUS
DN 146:273178
TI Lipid absorption inhibitors, lipase inhibitors, and foods containing acerola leaves or their preparations
IN Aoki, Hitoshi; Hanamura, Takayuki; Mayama, Chisato
PA Nichirei Foods Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 9pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2007055980	A	20070308	JP 2005-246325	20050826
PRAI JP 2005-246325		20050826		

AB Title inhibitors and foods are claimed. Thus, boiling water extract of acerola leaves at 1 mg/mL inhibited porcine pancreatic lipase activity by .apprx.50% and lowered plasma triglyceride level in cotton seed oil-fed mice.
IT 38533-30-1, Cyanidin-3-rhamnoside 56190-03-5, Pelargonidin-3-rhamnoside
RL: REM (Removal or disposal); PROC (Process)
(removal of; lipase inhibitors containing boiling water extract of acerola leaves for inhibition of lipid absorption and decreasing body weight)

L3 ANSWER 4 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:210743 CAPLUS
DN 146:499678
TI The high ascorbic acid content is the main cause of the low stability of anthocyanin extracts from acerola
AU De Rosso, Veridiana V.; Mercadante, Adriana Z.
CS Department of Food Science, Faculty of Food Engineering, State University of Campinas (UNICAMP), Sao Paulo, CEP 13083-862, Brazil
SO Food Chemistry (2007), 103(3), 935-943
CODEN: FOCHDJ; ISSN: 0308-8146
PB Elsevier B.V.
DT Journal

LA English
AB Acerola is considered to be one of the best natural sources of ascorbic acid (AA) and, for this reason, the influence of this component on the stability of anthocyanins from acerola exts. was determined and compared to those from acai, which have no detectable AA. The addition of three different levels of AA to the solution of acai anthocyanins resulted in a 110-fold increase in the degradation rate (kobs) at the highest fortification level (276 mg/mL). The fact that the flavonoid concentration of the acai anthocyanin extract was 10 times higher than that of the acerola was probably responsible for the three times higher stability of the AA-fortified acai system compared to the acerola system, both at the same AA concentration and similar total polyphenol levels. The higher the level of AA addition to acai anthocyanin solns., the greater was the color fading, indicated by increase of L* and decrease of a* and C* values.
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
IT 38533-30-1, Cyanidin-3-rhamnoside 56190-03-5, Pelargonidin-3-rhamnoside 936479-47-9
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(high ascorbic acid content related to anthocyanin instability in acerola exts. compared with acai)

L3 ANSWER 5 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2006:1048945 CAPLUS
DN 146:80737
TI Anthocyanin pigments in strawberry
AU Lopes da Silva, Fatima; Escribano-Bailon, Maria Teresa; Perez Alonso, Jose Joaquin; Rivas-Gonzalo, Julian C.; Santos-Buelga, Celestino
CS Facultad de Farmacia, Laboratorio de Nutricion y Bromatologia, Universidad de Salamanca, Salamanca, E-37007, Spain
SO LWT--Food Science and Technology (2006), Volume Date 2007, 40(2), 374-382
CODEN: LSTWB3
PB Elsevier Ltd.
DT Journal
LA English
AB The anthocyanin composition was analyzed in strawberry fruits from five different cultivars (cv. Eris, Oso Grande, Carisma, Tudnew and Camarosa). Twenty-five defined anthocyanin pigments were detected, most of them containing Pelargonidin (Pg) as aglycon; some cyanidin (Cy) derivs. were also found. Glucose and rutinose were the usual substituting sugars, although arabinose and rhamnose were also tentatively identified; some minor anthocyanins showed acylation with aliphatic acids. A relevant aspect was the detection of anthocyanin-derived pigments, namely 5-carboxypyranopelargonidin-3-glucoside and 4 condensed pigments containing C-C linked anthocyanin (Pg) and flavanol (catechin and afzelechin) residues. Total anthocyanin content ranged between 200 and 600 mg kg-1, with Pg 3-gluc constituting 77-90% of the anthocyanins in the strawberry exts. followed by Pg 3-rut (6-11%) and Cy 3-gluc (3-10%). A notable variability was found among the anthocyanin concns. in samples of a same variety and harvest, indicating a strongly influence of the degree of maturity, edaphic-climatic factors and post-harvest storage.
RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
IT 134-04-3D, Pelargonidin, derivs. 134-04-3D, Pelargonidin, disaccharides 528-58-5D, Cyanidin, derivs. 7084-24-4, Cyanidin 3-glucoside 17334-58-6, Pelargonidin 3,5-diglucoside 18466-51-8, Pelargonidin 3-glucoside 18466-51-8D, Pelargonidin 3-glucoside, acetates 18719-76-1, Cyanidin 3-rutinoside 33569-08-3, Pelargonidin 3-arabinoside 33569-08-3D, succinates 33978-17-5, Pelargonidin 3-rutinoside 34425-22-4, Pelargonidin 3-galactoside 38533-30-1D, malonates 56190-03-5D, malonates 94977-38-5 104055-86-9 104056-23-7 138590-96-2 216692-08-9 680227-23-0 753008-64-9 753008-65-0 753008-66-1 753008-67-2 781626-03-7
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(anthocyanin pigments in strawberry cultivars)

L3 ANSWER 6 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2006:167977 CAPLUS
DN 144:239246
TI Skin-lightening agent containing polyphenol compounds
IN Uchida, Eriko; Hanamura, Takayuki; Mayama, Chisato; Aoki, Hitoshi
PA Nichirei Foods Inc., Japan
SO PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DT Patent

LA Japanese
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006019114	A1	20060223	WO 2005-JP15009	20050817
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	EP 1787624	A1	20070523	EP 2005-780368	20050817
	R: DE, ES, FR, GB, IT				
	US 2007189997	A1	20070816	US 2007-708021	20070220
PRAI	JP 2004-238702	A	20040818		
	WO 2005-JP15009	W	20050817		

AB Disclosed is a skin-lightening agent sufficiently effective in lightening the skin. Also provided is a melanin generation inhibitor which contains as an active ingredient a polyphenol compound derived from Acerola, an Acerola polyphenol fraction, or another polyphenol compound, and which may optionally further contain ascorbic acid or an ascorbic acid derivative as an active ingredient. A cosmetic composition, food or beverage composition, or medicinal composition is further provided which contains the tyrosinase inhibitor. For example, fruits of Acerola were extracted with TFA/methanol solvent. Cyanidin 3-rhamnoside and pelargonidin 3-rhamnoside were isolated from the extract and in vitro IC50 values for inhibiting activities of tyrosinase were 33 and 5.6 μM, resp.

RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 38533-30-1P, Cyanidin 3-rhamnoside 56190-03-5P, Pelargonidin 3-rhamnoside
RL: COS (Cosmetic use); FFD (Food or feed use); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(skin-lightening agent containing polyphenols from Acerola exts.)

L3 ANSWER 7 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:426452 CAPLUS
DN 142:441885
TI Glucose absorption inhibitor and process for producing the same
IN Aoki, Hitoshi; Hanamura, Takayuki; Mayama, Chisato; Hirayama, Yasushi; Shimizu, Makoto
PA Nichirei Corporation, Japan
SO PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005044290	A1	20050519	WO 2004-JP16218	20041101
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	JP 2005139093	A	20050602	JP 2003-375323	20031105
	EP 1685822	A1	20060802	EP 2004-799424	20041101
	R: DE, ES, FR, GB, IT				
	US 2007082077	A1	20070412	US 2006-578250	20060504
PRAI	JP 2003-375323	A	20031105		
	WO 2004-JP16218	W	20041101		

AB A glucose absorption inhibitor and a process for producing the inhibitor.

The glucose absorption inhibitor contains as an active ingredient a substance which is derived from acerola and has glucose absorption inhibitory activity.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 38533-30-1P, Cyanidin-3-rhamnoside 56190-03-5P, Pelargonidin-3-rhamnoside
RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(acerola polyphenols and anthocyanins as glucose absorption inhibitors and process for producing the same)

L3 ANSWER 8 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:351440 CAPLUS
DN 143:96211
TI Chemopreventive potential of wild lowbush blueberry fruits in multiple stages of carcinogenesis
AU Kraft, Tristan F. Burns; Schmidt, Barbara M.; Yousef, G. G.; Knight, Christopher T. G.; Cuendet, Muriel; Kang, Young-Hwa; Pezzuto, John M.; Seigler, David S.; Lila, Mary Ann
CS Div. of Nutritional Sciences, Univ. of Illinois at Urbana-Champaign, Urbana, IL, 61801, USA
SO Journal of Food Science (2005), 70(3), S159-S166
CODEN: JFDSAZ; ISSN: 0022-1147
PB Institute of Food Technologists
DT Journal
LA English
AB Wild lowbush blueberry fruit extract was fractionated using vacuum chromatog. and analyzed for chemopreventive potential using bioassays that test the ability of compds. to inhibit the initiation, promotion, and progression stages of carcinogenesis. A fraction containing phytosterols was active against the initiation stage (quinone reductase assay). However, more polar compds. were inhibitors of later stages of carcinogenesis; a fraction containing flavan-3-ols and fractions containing mainly anthocyanins, phenolic acids, flavan-3-ols, and some proanthocyanidin dimers demonstrated activity against the promotion stage (cyclooxygenase and ornithine decarboxylase assays, resp.), and a proanthocyanidin-rich fraction demonstrated antiproliferation activity (inhibition of cancerous murine hepatocyte proliferation is associated with the progression stage). These results indicate that lowbush blueberries contain a range of compds. that have bioactivity against multiple stages of carcinogenesis, and different types of phenolic compds. are active at different stages.

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 117-39-5, Quercetin 154-23-4, Catechin 327-97-9, Chlorogenic acid 474-62-4, Campesterol 490-46-0, Epicatechin 7084-24-4, Cyanidin-3-O-glucoside 7400-08-0, p-Coumaric acid 20315-25-7, Procyanidin B1 27214-72-8, Cyanidin-3-O-arabinoside 38533-30-1, Cyanidin-3-rhamnoside
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(chemopreventive potential of wild lowbush blueberry fruits in multiple stages of carcinogenesis)

L3 ANSWER 9 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:275690 CAPLUS
DN 142:341828
TI Hypoglycemic agents and AGE (advanced glycation endproducts) formation inhibitors from acerola, their medical use, and manufacture
IN Hanamura, Takayuki; Hagiwara, Toshihiko; Kawagishi, Hirokazu
PA Nichirei Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005082509	A	20050331	JP 2003-314207	20030905
PRAI	JP 2003-314207		20030905		

AB Title agents and inhibitors, useful for prophylactic and therapeutic treatment of diabetes mellitus or diabetic complications, are manufactured by pulverization of acerola fruits, extraction, and optionally purification Thus, cyanidin-3-rhamnoside, pelargonidin-3-rhamnoside, and quercitrin extracted from acerola fruits inhibited maltase and sucrase.

IT 522-12-3P, Quercitrin 38533-30-1P, Cyanidin-3-rhamnoside
56190-03-5P, Pelargonidin-3-rhamnoside
RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hypoglycemic agents and AGE formation inhibitors containing acerola polyphenols)

L3 ANSWER 10 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:233432 CAPLUS
DN 142:335271
TI Structural and functional characterization of polyphenols isolated from acerola (Malpighia emarginata DC.) fruit
AU Hanamura, Takayuki; Hagiwara, Toshihiko; Kawagishi, Hirokazu
CS Research and Development Division, Proc. Foods Company, Nichirei Corporation, Chiba, 261-8545, Japan
SO Bioscience, Biotechnology, and Biochemistry (2005), 69(2), 280-286
CODEN: BBBIEJ; ISSN: 0916-8451
PB Japan Society for Bioscience, Biotechnology, and Agrochemistry
DT Journal
LA English
AB Two anthocyanins, cyanidin-3-α-O-rhamnoside (C3R) and pelargonidin-3-α-O-rhamnoside (P3R), and quercitrin (quercetin-3-α-O-rhamnoside), were isolated from acerola (Malpighia emarginata DC.) fruit. These polyphenols were evaluated based on the functional properties associated with diabetes mellitus or its complications, i.e., on the radical scavenging activity and the inhibitory effect on both α-glucosidase and advanced glycation end product (AGE) formation. C3R and quercitrin revealed strong radical scavenging activity. While the inhibitory profiles of isolated polyphenols except quercitrin towards α-glucosidase activity were low, all polyphenols strongly inhibited AGE formation.
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
IT 522-12-3P 38533-30-1P 56190-03-5P
RL: BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(Structural and functional characterization of polyphenols from acerola fruit)

L3 ANSWER 11 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:204035 CAPLUS
DN 137:60260
TI Phenolic compounds from Hypericum perforatum
AU Jurgenliernk, Guido; Nahrstedt, Adolf
CS Institute of Pharmaceutical Biology and Phytochemistry, Westfalische Wilhelms-University of Munster, Munster, 48149, Germany
SO Planta Medica (2002), 68(1), 88-91
CODEN: PLMEAA; ISSN: 0032-0943
PB Georg Thieme Verlag
DT Journal
LA English
AB During a re-investigation of phenolic compds. from the dried crude drug material of St. John's wort (Hypericum perforatum L.) 22 phenolic compds. were detected by HPLC; 14 of them were quantified using the same system. Twelve phenolic compds. were isolated from the plant material and their structures identified mainly by spectroscopic methods, among them quercetin-3-O-(2''-O-acetyl)-β-D-galactoside as a new natural product. Cryptochlorogenic acid, protocatechuic acid, 3-O-[Z]-p-coumaroylquinic acid, isoorientin, cyanidin-3-O-α-L-rhamnoside, and astilbin were obtained for the first time from this source: the earlier suspected neochlorogenic acid, 3-O-[E]-p-coumaroylquinic acid, mangiferin, miquelianin and guaijaverin were confirmed.
RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
IT 99-50-3P, Protocatechuic acid 117-39-5P, Quercetin 153-18-4P, Rutin 480-37-5P, Pinocembrin-7-methyl ether 482-36-0P, Hyperoside 522-12-3P, Quercitrin 548-04-9P, Hypericin 905-99-7P, Cryptochlorogenic acid 906-33-2P, Neochlorogenic acid 1617-53-4P, AmentoFlavone 4261-42-1P, Isoorientin 4773-96-0P, Mangiferin 5746-55-4P 11079-53-1P, Hyperforin 21637-25-2P, Isoquercitrin 22255-13-6P, Guaijaverin 22688-79-5P, Miquelianin 29838-67-3P, Astilbin 38533-30-1P 55954-61-5P, Pseudohypericin 101140-06-1P 185502-68-5P 439266-62-3P
RL: NPO (Natural product occurrence); PUR (Purification or recovery); BIOL

(Biological study); OCCU (Occurrence); PREP (Preparation)
(phenolic compds. from Hypericum perforatum)

L3 ANSWER 12 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1997:303726 CAPLUS
DN 126:316637
TI Analysis of molecular structure of black rice pigment
AU Zhong, Liyu; Hu, Qiulin
CS Wuxi University Light Industry, Wuxi, 214036, Peop. Rep. China
SO Zhongguo Liangyou Xuebao (1996), 11(6), 26-35
CODEN: ZLXUFO; ISSN: 1003-0174
PB Zhongguo Liangyou Xuehui
DT Journal
LA Chinese
AB Black-food is famous for rich in nutrition. To develop the utilization of the natural black-pigment, methods,including PC, GC, UV-Spectrophotograph etc., were studied to analyze the mol. structure of the pigment. The results showed that five water-soluble anthocyanins were found in the pigment of 91-53 black-rice, in which the two main anthocyanins were cyanidin-3-rhamnoside and peonidin-3-arabinoside. The pigment was rose-red. It can be used as a natural healthy pigment-additive.
IT 27214-74-0, Peonidin-3-arabinoside 38533-30-1, Cyanidin-3-rhamnoside
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(anal. of mol. structure of black rice pigment)

L3 ANSWER 13 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1996:366150 CAPLUS
DN 125:36277
TI Recovery of anthocyanins from processing residues of pigmented oranges
AU Calvarano, Maria; Postorino, Enrico; Calvarano, Ignazio; Giofriddo, Francesco
CS Italy
SO Essenze, Derivati Agrumari (1995), 65(4), 557-566
CODEN: EDAGAH; ISSN: 0014-0902
PB Stazione Sperimentale per l'Industria delle Essenze e dei Derivati Agrumari
DT Journal
LA Italian
AB Anthocyanins were recovered from orange pulp residues from juice extraction, comprising about 5% of fruit, using a pilot scale installation with sequential membrane ultrafiltration and absorption on a resin-packed column. The ultrafiltration module has a membrane surface of 0.37 m2 and the resin is Amberlite XAD 16. The pulp contains large amts. of anthocyanin-rich juice and is first treated in 1:1 EtOH-water containing 2% citric acid, under stirring for 20 min., for two successive extns. The liquid phase is filtered and the alc. is removed by distillation in a rotovap at 50°, then the aqueous phase is fed to the resin column where the anthocyanins absorb and are eluted with EtOH-water. After removal of solvents, the anthocyanins are obtained as a powder, and the recovery efficiency is 53%. There are significant losses, attributed to non-extractable residues retained by the pulp, losses during EtOH distillation, product retained by the resin, and losses in final processing. The main components in the fairly pure product are cyanidin-3-glucoside and cyanidin-3-rhamnoside. The eluent contains other useful products and can be a good source of monosaccharides. The products may be useful as chemical feedstocks, and for therapeutic formulations.
IT 7084-24-4P, Cyanidin-3-glucoside 38533-30-1P, Cyanidin-3-rhamnoside
RL: PUR (Purification or recovery); PREP (Preparation)
(recovery of anthocyanins from residues of juice extraction of pigmented oranges by extraction/ultrafiltration/resin absorption)

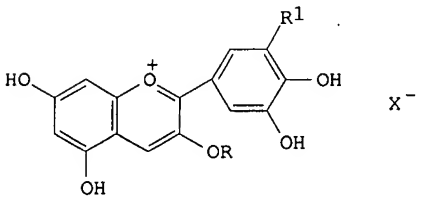
L3 ANSWER 14 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1982:3687 CAPLUS
DN 96:3687
TI Anthocyanins in Salvia - their significance in species relationship and evolution
AU Haque, M. S.; Ghoshal, D. N.; Ghoshal, K. K.
CS Dep. Genet. Plant Breed., BCKVV, Kalyani, India
SO Proceedings of the Indian National Science Academy, Part B: Biological Sciences (1981), 47(2), 204-9
CODEN: PIBSBB; ISSN: 0073-6600

DT Journal
LA English
AB The species relation in 10 species and varieties of Salvia was studied on the basis of anthocyanin pigments distribution pattern. The identified pigments fall under 3 groups. All red, scarlet, and pink-flowered varieties contained pelargonidin, all blue-flowered varieties contained delphinidin, and amethyst- and grape-violet-colored varieties contained cyanidin derivs. Glycoside 3-rhamnoside occurred frequently in most of the species. The flower color of F1 intervarietal hybrid of S. coccinea was the same as that of one of its parents. In both the parents and their hybrid the pigment identified was pelargonidin 3-rhamnoside. S. coccinea Was most closely related to S. splendens var Fireball. All of these species and varieties contained pelargonidin as their principal anthocyanidin. Two other varieties of S. splendens, e.g., amethyst and grape-violet, may be related to S. coccinea and S. grahamii, as they also contain pelargonidin apart from having cyanidin as their main pigment. Three other species, i.e., S. farinacea, S. pratensis, and S. hispanica, may be closely related to one another due to having delphinidin as their main pigment. While considering the evolutionary aspect, it is assumed that the blue-flowered species are the most primitive, as shown by their pollination mechanism as well as by the presence of the pigment delphinidin. In course of time, these may have given rise to the scarlet flowered varieties, the intermediate step being the species and varieties containing cyanidin as the main pigment. Some varieties of the same species have been found to contain both cyanidin and pelargonidin. The cyanidin-containing varieties appear as an intermediate stage through which the highly evolved pelargonidin-containing varieties have developed.
IT 134-04-3 528-53-0 528-58-5 29907-19-5 38533-30-1
53925-32-9 56190-03-5
RL: BIOL (Biological study)
(of Salvia species, evolution and flower color in relation to)

L3 ANSWER 15 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1981:71520 CAPLUS
DN 94:71520
TI Treatment of atheroma
IN Majoie, Bernard
PA Societe de Recherches Industrielles (SORI) S. A., Fr.
SO U.S., 4 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4229439	A	19801021	US 1977-853422	19771121
PRAI	US 1977-853422	A	19771121		

OS MARPAT 94:71520
GI



I

AB Compns. containing anthocyanidins I (R = glycosyl; R1 = H, OH, OMe; X = anion) are useful for treatment of atheroma and angiopathies. Thus, an injectable composition containing cyanidin-3-glucoside chloride [7084-24-4] at 50 mg/day for 21 days in 50 patients with arterial hypertension showed improvement in 40 patients.
IT 528-53-0 528-58-5 1429-30-7 6906-38-3 6988-81-4 7084-24-4
29907-19-5 38533-30-1
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceuticals containing, for atheroma and angiopathy treatment)

L3 ANSWER 16 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1978:19014 CAPLUS
DN 88:19014
TI Isolation and characterization of anthocyanin pigment from phosphorus-deficient maize plants
AU Bhatla, S. C.; Pant, R. C.
CS Dep. Bot., Univ. Delhi, Delhi, India
SO Current Science (1977), 46(20), 700-2
CODEN: CUSCAM; ISSN: 0011-3891
DT Journal
LA English
AB P deficiency in maize (Zea mays var Ganga-5) resulted in the accumulation of anthocyanin pigment in leaves. The accumulating pigment was extracted in MeOH-HCl (99:1) and a part of it was hydrolyzed to sep. the aglycon (anthocyanidin) and the sugar moieties. The purified anthocyanin pigment and its aglycon were subjected to chromatog. and spectrophotometric analyses and the pigment was identified as cyanidin-3-glycoside, a monoside. The sugar moiety was identified as rhamnose. On the basis of these studies, the accumulating pigment was characterized as cyanidin-3-rhamnoside.
IT 38533-30-1
RL: BIOL (Biological study)
(of phosphorus-deficient corn plant)

L3 ANSWER 17 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1977:402369 CAPLUS
DN 87:2369
TI Chemotaxonomic investigations on the flavonoid compounds in the leaves of Saxifraga aizoon Jacq
AU Pawlowska, Lucyna
CS Inst. Bot., PAN, Krakow, Pol.
SO Acta Societatis Botanicorum Poloniae (1976), 45(4), 383-93
CODEN: ASBNA2; ISSN: 0001-6977
DT Journal
LA English
AB Flavonoid compds. of S. aizoon were isolated by extraction with MeOH and separated and determined by thin-layer chromatog. combined with UV spectrometry. The following compds. were found: kaempferol, quercetin, ellagic and chlorogenic acids, chlorogenic and ferulic acid esters, cyanidin 3-xyloside, cyanidin 3-rhamnoside, cyanidin 3-glucoside, quercetin 3-rhamnoglucoside, and quercetin 3-rhamnoside.
IT 117-39-5 153-18-4 327-97-9 327-97-9D, esters 476-66-4 520-18-3 522-12-3 1135-24-6D, esters 7084-24-4 29761-24-8 38533-30-1
RL: BIOL (Biological study)
(of Saxifraga aizoon, taxonomy in relation to)

L3 ANSWER 18 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1977:54070 CAPLUS
DN 86:54070
TI Anthocyanin composition of taro
AU Chan, Harvey T., Jr.; Kao-Jao, Tsung Hui C.; Nakayama, T. O. M.
CS Hawaii Fruit Lab., ARS, Honolulu, HI, USA
SO Journal of Food Science (1977), 42(1), 19-21
CODEN: JFDSAZ; ISSN: 0022-1147
DT Journal
LA English
AB Anthocyanins were extracted from taro corms with 50% MeOH, isolated by adsorption on insol. poly(vinyl pyrrolidinone), and purified by thin-layer chromatog. The pigments were identified by chromatog. and photometry as pelargonidin 3-glucoside [18466-51-8], cyanidin 3-rhamnoside [38533-30-1], and cyanidin 3-glucoside [7084-24-4]. Levels of anthocyanins were highest in the skin of the corm, 16.0 mg%, with equal amts., 4.29 mg%, in both corm and petiole. Anthocyanogens also were present.
AB . . . pyrrolidinone), and purified by thin-layer chromatog. The pigments were identified by chromatog. and photometry as pelargonidin 3-glucoside [18466-51-8], cyanidin 3-rhamnoside [38533-30-1], and cyanidin 3-glucoside [7084-24-4]. Levels of anthocyanins were highest in the skin of the corm, 16.0 mg%, with equal amts.,. . .
IT 7084-24-4 18466-51-8 38533-30-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of Colocasia esculenta)

L3 ANSWER 19 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1975:28661 CAPLUS
DN 82:28661
TI Anthocyanin biosynthesis in Pisum. Sequence studies in pigment production
AU Statham, Carmel M.; Crowden, Ronald K.
CS Dep. Bot., Univ. Tasmania, Hobart, Australia
SO Phytochemistry (Elsevier) (1974), 13(9), 1835-40
CODEN: PYTCAS; ISSN: 0031-9422
DT Journal
LA English
AB The sequence of anthocyanin accumulation during flower development in 4 flower-color mutants of Pisum and in Lathyrus odoratus var Chloe, shows a progression from methylated to unmethylated anthocyanidins, and the replacement of 3-O-rhamnoside by 3-O-sambubioside and 3-O-sophoroside. This behavior is explained in terms of the activity gene Cr.
IT 2611-67-8 16727-02-9 17670-06-3 33012-73-6 38533-30-1
53859-11-3 53859-12-4 53925-32-9 53925-33-0
RL: BIOL (Biological study)
(of pea, flower development in relation to)

L3 ANSWER 20 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1972:446967 CAPLUS
DN 77:46967
TI Anthocyanins in the fruit of Cactus opuntia
AU Duro, Francesco; Condorelli, Pasquale
CS Ist. Chim. Farm. Tossicol., Univ. Catania, Catania, Italy
SO Quaderni di Merceologia (1971), 10(1), 39-48
CODEN: QUMEAG; ISSN: 0523-9559
DT Journal
LA Italian
AB Two anthocyanins were isolated from the juice of C. opuntia [Opuntia compressa]. In the yellow prickly pear juice cyanidin 3-rhamnoside (I) prevailed, with slight traces of petunidin 3,5-diglucoside (II), while in the red fruit juice a great amount of II was found, with small amts. of I.
IT 25846-73-5 38533-30-1
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of Opuntia compressa fruit)

L3 ANSWER 21 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1966:509949 CAPLUS
DN 65:109949
OREF 65:20510c-e
TI Oxidase activity in ecotypic populations of Typha latifolia
AU McNaughton, S. J.
CS Syracuse Univ., Syracuse, NY
SO Nature (London, United Kingdom) (1966), 211(5056), 1377-9
CODEN: NATUAS; ISSN: 0028-0836
DT Journal
LA English
AB cf. CA 64, 8644f. Broadleaf cattail (T. latifolia) rhizomes were collected at Redmond and Beaverton, Ore., which are 940 and 60 m., resp., above sea level; weather reports substantiated climatic differences at these places. The rhizomes were transplanted in the greenhouse at Portland State College and leaf samples were taken in late June, early July, and late August. Chloroplasts were isolated from leaves of the greenhouse-grown plants and from leaves of plants from mature populations. With catechol as a substrate, the rate of increase of enzyme activity over the range of 17-24° was 1.4 for Beaverton and 3.7 for Redmond plants. Glycolate oxidation increased with increased temperature (17-27°) in the Redmond plants and was the reverse for Beaverton plants. Data indicated that glycolic acid oxidase activity (Q10) was dependent upon daytime temps. at the native site. Data indicate that T. latifolia from climatically distinct sites are enzymically distinct, and that enzymic activity may be regulated by environmental conditions.
IT 2934-97-6 6018-40-2 6487-33-8 38533-30-1
(Derived from data in the 7th Collective Formula Index (1962-1966))

L3 ANSWER 22 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1966:509948 CAPLUS
DN 65:109948
OREF 65:20510b-c
TI The anthocyanin of Chamaecyparis conelets
AU Santamour, Frank S., Jr.
CS Morris Arboretum, Philadelphia, PA
SO Morris Arboretum Bull. (1966), 17(3), 50

DT Journal
LA English
AB cf. CA 64, 18030f. Staminate conelets of C. lawsoniana, C. obtusa and C. pisifera contained only cyanidin 3-rhamnoside. Quercitrin was also present. It is suggested that these 2 glycosides may be found together in other conifers.
IT 38533-30-1
(Derived from data in the 7th Collective Formula Index (1962-1966))

L3 ANSWER 23 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1963:422016 CAPLUS
DN 59:22016
OREF 59:4025g-h,4026a
TI Plant polyphenols. IX. The glycosidic pattern of anthocyanin pigments
AU Harborn, J. B.
CS John Innes Inst., Hertford, UK
SO Phytochemistry (Elsevier) (1963), 2, 85-97
CODEN: PYTCAS; ISSN: 0031-9422
DT Journal
LA Unavailable
AB cf. CA 57, 15513i. Twenty-three new anthocyanins have been identified and their Rf values and spectral properties. recorded. They are the 3-galactoside of pelargonidin (I); the 3-rhamnosides of peonidin (II), petunidin (III), and malvidin (IV); the 3-sambubioside of I; the 3-xylosylgalactosides of I, cyanidin (V), and II; the 3-sophorosides of I and V; the 5-glucoside-3-sophorosides of I and V; the 7-glucoside-3-sophoroside of I; the 5-glucoside-3-rhamno- sides of I, II, III, IV, V, and delphinidin; the 5-glucoside-3sambubiosides of I and V; the 3,5-diglucoside of rosinidin; and the 5-glucoside of luteolinidin. They occur variously, usually in the flowers, in spp. of Brassica, Fagus, Gesneria, Lathyrus, Matthiola, Papaver, Primula, Raphanus, and Streptocarpus. Known anthocyanins have been identified in these and other genera. As a result of this survey, previous structures for pigments of corn poppy, garden stock, and red cabbage have been revised.
IT 132-37-6P, Peonin 2611-67-8P, Cyanin 7084-24-4P, Chrysanthemin 7228-78-6P, Enin 13089-93-5P, 1-Benzopyrylium, 2-(3,4-dihydroxyphenyl)-5-(β-D-glucopyranosyloxy)-7-hydroxy-, chloride 16727-02-9P, 1-Benzopyrylium, 2-(3,4-dihydroxyphenyl)-3-[(2-O-β-D-glucopyranosyl-β-D-glucopyranosyl)oxy]-5-(β-D-glucopyranosyloxy)-7-hydroxy-, chloride 16727-30-3P, Malvin 17334-58-6P, Pelargonin 17670-06-3P, Delphin 18376-31-3P, 1-Benzopyrylium, 2-(3,4-dihydroxyphenyl)-3-[(2-O-β-D-glucopyranosyl-β-D-glucopyranosyl)oxy]-5,7-dihydroxy-, chloride 18466-51-8P, Callistephin 18719-76-1P, Keracyanin 20016-74-4P, Rosinidin, 3,5-diglucoside 27661-36-5P, Idein 28148-89-2P, 1-Benzopyrylium, 3-(β-D-galactopyranosyloxy)-5,7-dihydroxy-2-(4-hydroxy-3-methoxyphenyl)-, chloride 30104-49-5P, 1-Benzopyrylium, 5,7-dihydroxy-2-(4-hydroxyphenyl)-3-[(2-O-β-D-xylofuranosyl-β-D-glucopyranosyl)oxy]-, chloride 32221-58-2P, 1-Benzopyrylium, 3,5-bis(β-D-glucopyranosyloxy)-2-(4-hydroxy-3,5-dimethoxyphenyl)-7-methoxy-, chloride 34425-22-4P, 1-Benzopyrylium, 3-(β-D-galactopyranosyloxy)-5,7-dihydroxy-2-(4-hydroxyphenyl)-, chloride 38533-30-1P, 1-Benzopyrylium, 3-[(6-deoxy-α-L-mannopyranosyl)oxy]-2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-, chloride 53859-11-3P, 1-Benzopyrylium, 3-[(6-deoxy-α-L-mannopyranosyl)oxy]-5-(β-D-glucopyranosyloxy)-7-hydroxy-2-(4-hydroxy-3-methoxyphenyl)-, chloride 53925-28-3P, 1-Benzopyrylium, 3-[(6-deoxy-α-L-mannopyranosyl)oxy]-5,7-dihydroxy-2-(4-hydroxy-3,5-dimethoxyphenyl)-, chloride 53925-29-4P, 1-Benzopyrylium, 3-[(6-deoxy-α-L-mannopyranosyl)oxy]-5-(β-D-glucopyranosyloxy)-7-hydroxy-2-(4-hydroxy-3,5-dimethoxyphenyl)-, chloride 53925-30-7P, 1-Benzopyrylium, 3-[(6-deoxy-α-L-mannopyranosyl)oxy]-2-(3,4-dihydroxy-5-methoxyphenyl)-5-(β-D-glucopyranosyloxy)-7-hydroxy-, chloride 53925-31-8P, 1-Benzopyrylium, 3-[(6-deoxy-α-L-mannopyranosyl)oxy]-5-(β-D-glucopyranosyloxy)-7-hydroxy-2-(3,4,5-trihydroxyphenyl)-, chloride 53925-32-9P, 1-Benzopyrylium, 3-[(6-deoxy-α-L-mannopyranosyl)oxy]-5-(β-D-glucopyranosyloxy)-7-hydroxy-2-(4-hydroxyphenyl)-, chloride 55821-57-3P, 1-Benzopyrylium, 2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-3-[(O-β-D-xylopyranosyl-β-D-galactopyranosyl)oxy]-, chloride 56552-43-3P, 1-Benzopyrylium, 2-(3,4-dihydroxy-5-methoxyphenyl)-3,5-bis(β-D-glucofuranosyloxy)-7-hydroxy-, chloride 72551-79-2P, 1-Benzopyrylium, 3-[(6-deoxy-α-L-mannopyranosyl)oxy]-5,7-dihydroxy-2-(4-hydroxy-3-methoxyphenyl)-, chloride 86279-08-5P, 1-Benzopyrylium, 3-[(2-O-β-D-glucopyranosyl-β-D-glucopyranosyl)oxy]-7-(β-D-glucopyranosyloxy)-5-hydroxy-2-(4-hydroxyphenyl)-, chloride 101203-52-5P, 1-Benzopyrylium,

3-[(6-deoxy-α-L-mannopyranosyl)oxy]-2-(3,4-dihydroxy-5-methoxyphenyl)-5,7-dihydroxy-, chloride 102521-86-8P, 1-Benzopyrylium, 3,7-bis(β-D-glucopyranosyloxy)-5-hydroxy-2-(4-hydroxyphenyl)-, chloride 103064-79-5P, 1-Benzopyrylium, 5,7-dihydroxy-2-(4-hydroxyphenyl)-3-[(O-β-D-xylopyranosyl-β-D-glucopyranosyl)oxy]-, chloride 103102-91-6P, 3-[(6-O-β-D-Glucopyranosyl-D-glucosyl)oxy]-4',5,7-trihydroxyflavylium chloride 103189-13-5P, 4',5,7-Trihydroxy-3-[(6-O-β-L-rhamnosyl-D-glucosyl)oxy]flavylium chloride 103189-14-6P, 1-Benzopyrylium, 3-[(2-O-β-D-glucopyranosyl-D-glucopyranosylsyl)oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)-, chloride 105087-47-6P, 5-(D-Glucosyloxy)-4',7-dihydroxy-3-[(6-O-β-L-rhamnosyl-D-glucosyl)oxy]flavylium chloride 106198-07-6P, 5-(D-Glucosyloxy)-4',7-dihydroxy-3-[(2-O-β-D-xylofuranosyl-D-glucosyl)oxy]flavylium chloride 106249-11-0P, 5-(D-Glucosyloxy)-4',7-dihydroxy-3',5'-dimethoxy-3-[(6-O-β-L-rhamnosyl-D-glucosyl)oxy]flavylium chloride 155380-00-0P, 1-Benzopyrylium, 5,7-dihydroxy-2-(4-hydroxy-3-methoxyphenyl)-3-[(2-O-β-D-xylopyranosyl-β-D-galactopyranosyl)oxy]-, chloride
RL: PREP (Preparation)
(preparation of)

L3 ANSWER 24 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1962:62437 CAPLUS
DN 56:62437
OREF 56:12011h-i,12012a
TI Plant polyphenols. V. Occurrence of azalein and related pigments in flowers of Plumbago and Rhododendron species
AU Harborne, J. B.
CS John Innes Inst., Bayfordbury, UK
SO Archives of Biochemistry and Biophysics (1962), 96, 171-8
CODEN: ABBIA4; ISSN: 0003-9861
DT Journal
LA Unavailable
AB cf. CA 56, 7706c.-Azalein (5-methylquercetin 3-rhamnoside) (I) and a new anthocyanidin present as the 3-rhamnoside were isolated from P. capensis. The 3-rhamnosides of pelargonidin, cyanidin, delphinidin, and kaempferol were found in P. rosea. I was found in 44 out of 83 Rhododendron spp. examined The 3-galactoside and 3-arabinoside of quercetin and the 3-arabinoside of cyanidin were found for the first time in Rhododendron flowers.
IT 27214-72-8 29907-19-5 30370-87-7 38533-30-1 56190-03-5
(Derived from data in the 7th Collective Formula Index (1962-1966))

L3 ANSWER 25 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1961:28581 CAPLUS
DN 55:28581
OREF 55:5672g-i
TI Flavonoid pigments of Lathyrus odoratus
AU Harborne, J. B.
CS John Innes Hort. Inst., Bayfordbury, UK
SO Nature (London, United Kingdom) (1960), 187, 240-1
CODEN: NATUAS; ISSN: 0028-0836
DT Journal
LA Unavailable
AB Pigments of 3 varieties of L. odoratus; the Air Warden, the Harrow, and the Jupiter, representing, resp., the orange pelargonidin, the magenta cyanidin, and the mauve delphinidin color classes were characterized by means of paper chromatography and absorption spectrophotometry. Nineteen anthocyanins and three flavonol glycosides were isolated and identified as follows: in Air Warden, pelargonidin 3-rhamnoside, -5-glucoside-3-rhamnoside, -3-glucoside, -3-xylosylglucoside, and -3,5-di-glucoside and kaempferol 3-rhamnoside; in Harrow, cyanidin and peonidin 3-rhamnoside, -5-glucoside-3-rhamnoside, -3-glucoside, and -3-xylosylglucoside, peonidin 3,5-diglucoside and kaempferol and quercetin 3-rhamnoside; in Jupiter, delphinidin and petunidin 3-rhamnoside, delphinidin, petunidin, and malvidin 5-glucoside-3-rhamnoside, and kaempferol, quercetin, and myricetin 3-rhamnoside.
IT 132-37-6, Peonin 134-01-0, 1-Benzopyrylium, 3,5,7-trihydroxy-2-(4-hydroxy-3-methoxyphenyl)-, chloride 134-04-3, 1-Benzopyrylium, 3,5,7-trihydroxy-2-(4-hydroxyphenyl)-, chloride 522-12-3, Quercitrin 6906-39-4, Glucoside, peonidin-3 7084-24-4, Chrysanthemin 17334-58-6, Pelargonin 17912-87-7, Myricitrin 18466-51-8, Callistephin 29907-19-5, Rhamnoside, delphinidin-3 38533-30-1, Rhamnoside, cyanidin-3 53925-29-4, Malvidin, 5-glucoside 3-rhamnoside 56190-03-5, Rhamnoside, pelargonidin-3 72551-79-2, Rhamnoside, peonidin-3 125107-91-7, Rhamnoside, petunidin-3 132536-65-3, Afzelin,

4'-arabinoside
(in Lathyrus odoratus)

=> d his

(FILE 'HOME' ENTERED AT 21:21:51 ON 25 SEP 2007)

FILE 'REGISTRY' ENTERED AT 21:22:16 ON 25 SEP 2007
E CYANIDIN-3-RHAMNOSIDE/CN
E CYANIDIN 3-RHAMNOSIDE/CN
L1 1 S E3
E PELARGONIDIN 3-RHAMNOSIDE/CN
E PELARGONIDIN-3-RHAMNOSIDE/CN
E PELARGONIDIN/CN
L2 1 S E3

FILE 'CAPLUS' ENTERED AT 21:24:39 ON 25 SEP 2007
L3 25 S L1
E DIABETES+ALL/CT
L4 6 S L3 AND (GLUCOSE OR DIABETES)

```
 FILE 'REGISTRY' ENTERED AT 21:22:16 ON 25 SEP 2007
                E CYANIDIN-3-RHAMNOSIDE/CN
                E CYANIDIN 3-RHAMNOSIDE/CN
L1            1 S E3
                E PELARGONIDIN 3-RHAMNOSIDE/CN
                E PELARGONIDIN-3-RHAMNOSIDE/CN
                E PELARGONIDIN/CN
L2            1 S E3

     FILE 'CAPLUS' ENTERED AT 21:24:39 ON 25 SEP 2007
L3           25 S L1
                E DIABETES+ALL/CT
L4            6 S L3 AND (GLUCOSE OR DIABETES)
L5            7 S L3 AND ACEROLA
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Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1600txm

PASSWORD:
* * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'CAPLUS' AT 21:40:16 ON 25 SEP 2007
FILE 'CAPLUS' ENTERED AT 21:40:16 ON 25 SEP 2007
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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	105.11	120.92

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-24.18	-24.18

=> d his

(FILE 'HOME' ENTERED AT 21:21:51 ON 25 SEP 2007)

FILE 'REGISTRY' ENTERED AT 21:22:16 ON 25 SEP 2007
E CYANIDIN-3-RHAMNOSIDE/CN
E CYANIDIN 3-RHAMNOSIDE/CN
L1 1 S E3
E PELARGONIDIN 3-RHAMNOSIDE/CN
E PELARGONIDIN-3-RHAMNOSIDE/CN
E PELARGONIDIN/CN
L2 1 S E3

FILE 'CAPLUS' ENTERED AT 21:24:39 ON 25 SEP 2007
L3 25 S L1
E DIABETES+ALL/CT
L4 6 S L3 AND (GLUCOSE OR DIABETES)

=> s l3 and acerola
226 ACEROLA
4 ACEROLAS
228 ACEROLA
(ACEROLA OR ACEROLAS)
L5 7 L3 AND ACEROLA

=> d bib abs kwic 1-7 l5

L5 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:911577 CAPLUS
DN 147:242711
TI Skin-lightening agent containing polyphenol compound
IN Uchida, Eriko; Hanamura, Takayuki; Mayama, Chisato; Aoki, Hitoshi
PA Nichirei Foods Inc., Japan
SO U.S. Pat. Appl. Publ., 16pp., Cont.-in-part of Appl. No. PCT/JP05/015009.
CODEN: USXXCO
DT Patent
LA English

11/708,021

FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2007189997	A1	20070816	US 2007-708021	20070220
WO 2006019114	A1	20060223	WO 2005-JP15009	20050817

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,

CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRAI JP 2004-238702 A 20040818
WO 2005-JP15009 A2 20050817

AB This invention relates to a method for inhibiting melanin formation in a subject comprising administering an effective amount of an Acerola -derived polyphenol compound, an Acerola polyphenol fraction, or the other polyphenol compound to a subject. This method comprises lightening the subject's skin by the inhibition of melanin formation. This method also comprises administering synergistically effective amts. of an Acerola-derived polyphenol compound, an Acerola polyphenol fraction, or the other polyphenol compound in combination with ascorbic acid or an ascorbic acid derivative to a subject.

AB This invention relates to a method for inhibiting melanin formation in a subject comprising administering an effective amount of an Acerola -derived polyphenol compound, an Acerola polyphenol fraction, or the other polyphenol compound to a subject. This method comprises lightening the subject's skin by the inhibition of melanin formation. This method also comprises administering synergistically effective amts. of an Acerola-derived polyphenol compound, an Acerola polyphenol fraction, or the other polyphenol compound in combination with ascorbic acid or an ascorbic acid derivative to a subject.

ST skin lightening agent polyphenol Acerola cosmetic

IT 117-39-5, Quercetin 482-36-0, Hyperoside 522-12-3, Quercetin-3-rhamnoside 21637-25-2, Isoquercitrin 29838-67-3, Astilbin 38533-30-1, Cyanidin-3-rhamnoside 56190-03-5, Pelargonidin-3-rhamnoside
RL: BSU (Biological study, unclassified); COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(skin-lightening agent containing polyphenol compound)

L5 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:251976 CAPLUS
DN 146:273178
TI Lipid absorption inhibitors, lipase inhibitors, and foods containing acerola leaves or their preparations
IN Aoki, Hitoshi; Hanamura, Takayuki; Mayama, Chisato
PA Nichirei Foods Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 9pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2007055980	A	20070308	JP 2005-246325	20050826
PRAI JP 2005-246325		20050826		

AB Title inhibitors and foods are claimed. Thus, boiling water extract of acerola leaves at 1 mg/mL inhibited porcine pancreatic lipase activity by .apprx.50% and lowered plasma triglyceride level in cotton seed oil-fed mice.

TI Lipid absorption inhibitors, lipase inhibitors, and foods containing acerola leaves or their preparations

AB Title inhibitors and foods are claimed. Thus, boiling water extract of acerola leaves at 1 mg/mL inhibited porcine pancreatic lipase activity by .apprx.50% and lowered plasma triglyceride level in cotton seed oil-fed. . .

ST lipid absorption inhibitor food acerola leaf ext; lipase inhibitor food acerola leaf ext

IT Adipose tissue
Antiobesity agents
Body weight
Health food
Hypolipemic agents
Malpighia emarginata
(lipase inhibitors containing boiling water extract of acerola leaves for inhibition of lipid absorption and decreasing body weight)

IT Lipids, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(lipase inhibitors containing boiling water extract of acerola leaves for inhibition of lipid absorption and decreasing body weight)

IT Blood
(neutral lipids; lipase inhibitors containing boiling water extract of acerola leaves for inhibition of lipid absorption and

decreasing body weight)
IT Lipids, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(neutral, blood; lipase inhibitors containing boiling water extract of acerola leaves for inhibition of lipid absorption and decreasing body weight)
IT Phenols, processes
RL: REM (Removal or disposal); PROC (Process)
(polyphenols, nonpolymeric, removal of; lipase inhibitors containing boiling water extract of acerola leaves for inhibition of lipid absorption and decreasing body weight)
IT 7732-18-5, Water, uses
RL: NUU (Other use, unclassified); USES (Uses)
(boiling; lipase inhibitors containing boiling water extract of acerola leaves for inhibition of lipid absorption and decreasing body weight)
IT 9001-62-1, Lipase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(lipase inhibitors containing boiling water extract of acerola leaves for inhibition of lipid absorption and decreasing body weight)
IT 38533-30-1, Cyanidin-3-rhamnoside 56190-03-5, Pelargonidin-3-rhamnoside
RL: REM (Removal or disposal); PROC (Process)
(removal of; lipase inhibitors containing boiling water extract of acerola leaves for inhibition of lipid absorption and decreasing body weight)

L5 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:210743 CAPLUS
DN 146:499678
TI The high ascorbic acid content is the main cause of the low stability of anthocyanin extracts from acerola
AU De Rosso, Veridiana V.; Mercadante, Adriana Z.
CS Department of Food Science, Faculty of Food Engineering, State University of Campinas (UNICAMP), Sao Paulo, CEP 13083-862, Brazil
SO Food Chemistry (2007), 103(3), 935-943
CODEN: FOCHDJ; ISSN: 0308-8146
PB Elsevier B.V.
DT Journal
LA English
AB Acerola is considered to be one of the best natural sources of ascorbic acid (AA) and, for this reason, the influence of this component on the stability of anthocyanins from acerola exts. was determined and compared to those from acai, which have no detectable AA. The addition of three different levels of AA to the solution of acai anthocyanins resulted in a 110-fold increase in the degradation rate (kobs) at the highest fortification level (276 mg/mL). The fact that the flavonoid concentration of the acai anthocyanin extract was 10 times higher than that of the acerola was probably responsible for the three times higher stability of the AA-fortified acai system compared to the acerola system, both at the same AA concentration and similar total polyphenol levels. The higher the level of AA addition to acai anthocyanin solns., the greater was the color fading, indicated by increase of L* and decrease of a* and C* values.
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
TI The high ascorbic acid content is the main cause of the low stability of anthocyanin extracts from acerola
AB Acerola is considered to be one of the best natural sources of ascorbic acid (AA) and, for this reason, the influence of this component on the stability of anthocyanins from acerola exts. was determined and compared to those from acai, which have no detectable AA. The addition of three different levels. . . mg/mL). The fact that the flavonoid concentration of the acai anthocyanin extract was 10 times higher than that of the acerola was probably responsible for the three times higher stability of the AA-fortified acai system compared to the acerola system, both at the same AA concentration and similar total polyphenol levels. The higher the level of AA addition to. . .
ST ascorbate anthocyanin acerola acai
IT Malpighia
(high ascorbic acid content related to anthocyanin instability in acerola exts.)
IT Anthocyanins
Flavonoids
RL: BSU (Biological study, unclassified); BIOL (Biological study)

(high ascorbic acid content related to anthocyanin instability in acerola exts.)
IT Euterpe oleracea
(high ascorbic acid content related to anthocyanin instability in acerola exts. compared with acai)
IT Phenols, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(polyphenols, nonpolymeric; high ascorbic acid content related to anthocyanin instability in acerola exts.)
IT 50-81-7, Ascorbic acid, biological studies 7084-24-4, Cyanidin-3-glucoside 18719-76-1, Cyanidin-3-rutinoside
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(high ascorbic acid content related to anthocyanin instability in acerola exts.)
IT 38533-30-1, Cyanidin-3-rhamnoside 56190-03-5, Pelargonidin-3-rhamnoside 936479-47-9
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(high ascorbic acid content related to anthocyanin instability in acerola exts. compared with acai)

L5 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2006:167977 CAPLUS
DN 144:239246
TI Skin-lightening agent containing polyphenol compounds
IN Uchida, Eriko; Hanamura, Takayuki; Mayama, Chisato; Aoki, Hitoshi
PA Nichirei Foods Inc., Japan
SO PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2006019114	A1	20060223	WO 2005-JP15009	20050817
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1787624	A1	20070523	EP 2005-780368	20050817
R: DE, ES, FR, GB, IT				
US 2007189997	A1	20070816	US 2007-708021	20070220
PRAI JP 2004-238702	A	20040818		
WO 2005-JP15009	W	20050817		

AB Disclosed is a skin-lightening agent sufficiently effective in lightening the skin. Also provided is a melanin generation inhibitor which contains as an active ingredient a polyphenol compound derived from Acerola , an Acerola polyphenol fraction, or another polyphenol compound, and which may optionally further contain ascorbic acid or an ascorbic acid derivative as an active ingredient. A cosmetic composition, food or beverage composition, or medicinal composition is further provided which contains the tyrosinase inhibitor. For example, fruits of Acerola were extracted with TFA/methanol solvent. Cyanidin 3-rhamnoside and pelargonidin 3-rhamnoside were isolated from the extract and in vitro IC50 values for inhibiting activities of tyrosinase were 33 and 5.6 μM, resp.
RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
AB . . . the skin. Also provided is a melanin generation inhibitor which contains as an active ingredient a polyphenol compound derived from Acerola, an Acerola polyphenol fraction, or another polyphenol compound, and which may optionally further contain ascorbic acid or an ascorbic acid derivative as. . . composition, food or beverage composition, or medicinal composition is further provided which contains the tyrosinase inhibitor. For example, fruits of Acerola were extracted with TFA/methanol solvent. Cyanidin 3-rhamnoside and pelargonidin 3-rhamnoside were isolated from the extract and in vitro IC50 values. . .
ST skin lightening polyphenol Acerola ext; cyanidin pelargonidin rhamnoside purifn Acerola ext tyrosinase inhibitor

IT Aglycons
RL: COS (Cosmetic use); FFD (Food or feed use); NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(anthocyanidins; skin-lightening agent containing polyphenols from Acerola exts.)
IT Melanins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(formation inhibition by; skin-lightening agent containing polyphenols from Acerola exts.)
IT Phenols, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(polyphenols, nonpolymeric; skin-lightening agent containing polyphenols from Acerola exts.)
IT Beverages
Drug delivery systems
Food
Malpighia
(skin-lightening agent containing polyphenols from Acerola exts.)
IT Anthocyanins
RL: COS (Cosmetic use); FFD (Food or feed use); NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(skin-lightening agent containing polyphenols from Acerola exts.)
IT Cosmetics
(skin-lightening; skin-lightening agent containing polyphenols from Acerola exts.)
IT 9002-10-2, Tyrosinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibition by; skin-lightening agent containing polyphenols from Acerola exts.)
IT 134-01-0, Peonidin 134-04-3, Pelargonidin 528-53-0, Delphinidin 528-58-5, Cyanidin 643-84-5, Malvidin
RL: COS (Cosmetic use); FFD (Food or feed use); NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(skin-lightening agent containing polyphenols from Acerola exts.)
IT 38533-30-1P, Cyanidin 3-rhamnoside 56190-03-5P, Pelargonidin 3-rhamnoside
RL: COS (Cosmetic use); FFD (Food or feed use); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(skin-lightening agent containing polyphenols from Acerola exts.)
IT 50-81-7, L-Ascorbic acid, biological studies
RL: COS (Cosmetic use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(skin-lightening agent containing polyphenols from Acerola exts.)

L5 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:426452 CAPLUS
DN 142:441885
TI Glucose absorption inhibitor and process for producing the same
IN Aoki, Hitoshi; Hanamura, Takayuki; Mayama, Chisato; Hirayama, Yasushi; Shimizu, Makoto
PA Nichirei Corporation, Japan
SO PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005044290	A1	20050519	WO 2004-JP16218	20041101

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,

NE, SN, TD, TG

	JP 2005139093	A	20050602	JP 2003-375323	20031105
	EP 1685822	A1	20060802	EP 2004-799424	20041101
	R: DE, ES, FR, GB, IT				
	US 2007082077	A1	20070412	US 2006-578250	20060504
PRAI	JP 2003-375323	A	20031105		
	WO 2004-JP16218	W	20041101		

AB A glucose absorption inhibitor and a process for producing the inhibitor. The glucose absorption inhibitor contains as an active ingredient a substance which is derived from acerola and has glucose absorption inhibitory activity.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB . . . process for producing the inhibitor. The glucose absorption inhibitor contains as an active ingredient a substance which is derived from acerola and has glucose absorption inhibitory activity.

ST acerola polyphenol anthocyanin intestine glucose absorption inhibitor

IT Antidiabetic agents
Diabetes mellitus
Health food
Human
Intestine
Malpighia
(acerola polyphenols and anthocyanins as glucose absorption inhibitors and process for producing the same)

IT Anthocyanins
RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(acerola polyphenols and anthocyanins as glucose absorption inhibitors and process for producing the same)

IT Phenols, biological studies
RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polyphenols, nonpolymeric; acerola polyphenols and anthocyanins as glucose absorption inhibitors and process for producing the same)

IT Biological transport
(uptake; acerola polyphenols and anthocyanins as glucose absorption inhibitors and process for producing the same)

IT 50-99-7, D-Glucose, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(acerola polyphenols and anthocyanins as glucose absorption inhibitors and process for producing the same)

IT 38533-30-1P, Cyanidin-3-rhamnoside 56190-03-5P, Pelargonidin-3-rhamnoside
RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(acerola polyphenols and anthocyanins as glucose absorption inhibitors and process for producing the same)

L5 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:275690 CAPLUS
DN 142:341828
TI Hypoglycemic agents and AGE (advanced glycation endproducts) formation inhibitors from acerola, their medical use, and manufacture
IN Hanamura, Takayuki; Hagiwara, Toshihiko; Kawagishi, Hirokazu
PA Nichirei Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005082509	A	20050331	JP 2003-314207	20030905
PRAI	JP 2003-314207		20030905		

AB Title agents and inhibitors, useful for prophylactic and therapeutic treatment of diabetes mellitus or diabetic complications, are manufactured by pulverization of acerola fruits, extraction, and optionally purification Thus, cyanidin-3-rhamnoside, pelargonidin-3-rhamnoside, and quercitrin extracted from acerola fruits inhibited maltase and sucrase.

TI Hypoglycemic agents and AGE (advanced glycation endproducts) formation inhibitors from acerola, their medical use, and manufacture

AB . . . agents and inhibitors, useful for prophylactic and therapeutic treatment of diabetes mellitus or diabetic complications, are manufactured by pulverization of acerola fruits, extraction, and optionally purification Thus, cyanidin-3-rhamnoside, pelargonidin-3-rhamnoside, and quercitrin extracted from acerola fruits inhibited maltase and sucrase.

ST hypoglycemic acerola cyanidin pelargonidin rhamnoside quercitrin; advanced glycation endproduct formation inhibitor acerola

IT Glycoproteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(AGE (advanced glycosylation end product); hypoglycemic agents and AGE formation inhibitors containing acerola polyphenols)

IT Antidiabetic agents
Diabetes mellitus
Malpighia
(hypoglycemic agents and AGE formation inhibitors containing acerola polyphenols)

IT Anthocyanins
RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hypoglycemic agents and AGE formation inhibitors containing acerola polyphenols)

IT Phenols, biological studies
RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polyphenols, nonpolymeric; hypoglycemic agents and AGE formation inhibitors containing acerola polyphenols)

IT Glycosides
RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(quercetin; hypoglycemic agents and AGE formation inhibitors containing acerola polyphenols)

IT 522-12-3P, Quercitrin 38533-30-1P, Cyanidin-3-rhamnoside
56190-03-5P, Pelargonidin-3-rhamnoside
RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hypoglycemic agents and AGE formation inhibitors containing acerola polyphenols)

IT 9001-42-7, Maltase 37288-39-4, Sucrase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; hypoglycemic agents and AGE formation inhibitors containing acerola polyphenols)

L5 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:233432 CAPLUS
DN 142:335271
TI Structural and functional characterization of polyphenols isolated from acerola (Malpighia emarginata DC.) fruit
AU Hanamura, Takayuki; Hagiwara, Toshihiko; Kawagishi, Hirokazu
CS Research and Development Division, Proc. Foods Company, Nichirei Corporation, Chiba, 261-8545, Japan
SO Bioscience, Biotechnology, and Biochemistry (2005), 69(2), 280-286
CODEN: BBBIEJ; ISSN: 0916-8451
PB Japan Society for Bioscience, Biotechnology, and Agrochemistry
DT Journal
LA English
AB Two anthocyanins, cyanidin-3-α-O-rhamnoside (C3R) and pelargonidin-3-α-O-rhamnoside (P3R), and quercitrin (quercetin-3-α-O-rhamnoside), were isolated from acerola (Malpighia emarginata DC.) fruit. These polyphenols were evaluated based on the functional properties associated with diabetes mellitus or its complications, i.e., on the radical scavenging activity and the inhibitory effect on both α-glucosidase and advanced glycation end product (AGE) formation. C3R and quercitrin revealed strong radical scavenging activity. While the inhibitory profiles of isolated polyphenols except quercitrin towards α-glucosidase activity were low, all polyphenols strongly inhibited AGE formation.
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/578,250

TI Structural and functional characterization of polyphenols isolated from acerola (Malpighia emarginata DC.) fruit

AB Two anthocyanins, cyanidin-3-α-O-rhamnoside (C3R) and pelargonidin-3-α-O-rhamnoside (P3R), and quercitrin (quercetin-3-α-O-rhamnoside), were isolated from acerola (Malpighia emarginata DC.) fruit. These polyphenols were evaluated based on the functional properties associated with diabetes mellitus or its complications,. . .

IT Antidiabetic agents
Antioxidants
Health food
Malpighia emarginata
(Structural and functional characterization of polyphenols from acerola fruit)

IT Phenols, biological studies
RL: BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(polyphenols, nonpolymeric; Structural and functional characterization of polyphenols from acerola fruit)

IT 522-12-3P 38533-30-1P 56190-03-5P
RL: BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(Structural and functional characterization of polyphenols from acerola fruit)

IT 9001-42-7, α-Glucosidase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibition; Structural and functional characterization of polyphenols from acerola fruit)